

# SOFCs can theoretically operate on hydrocarbon fuels

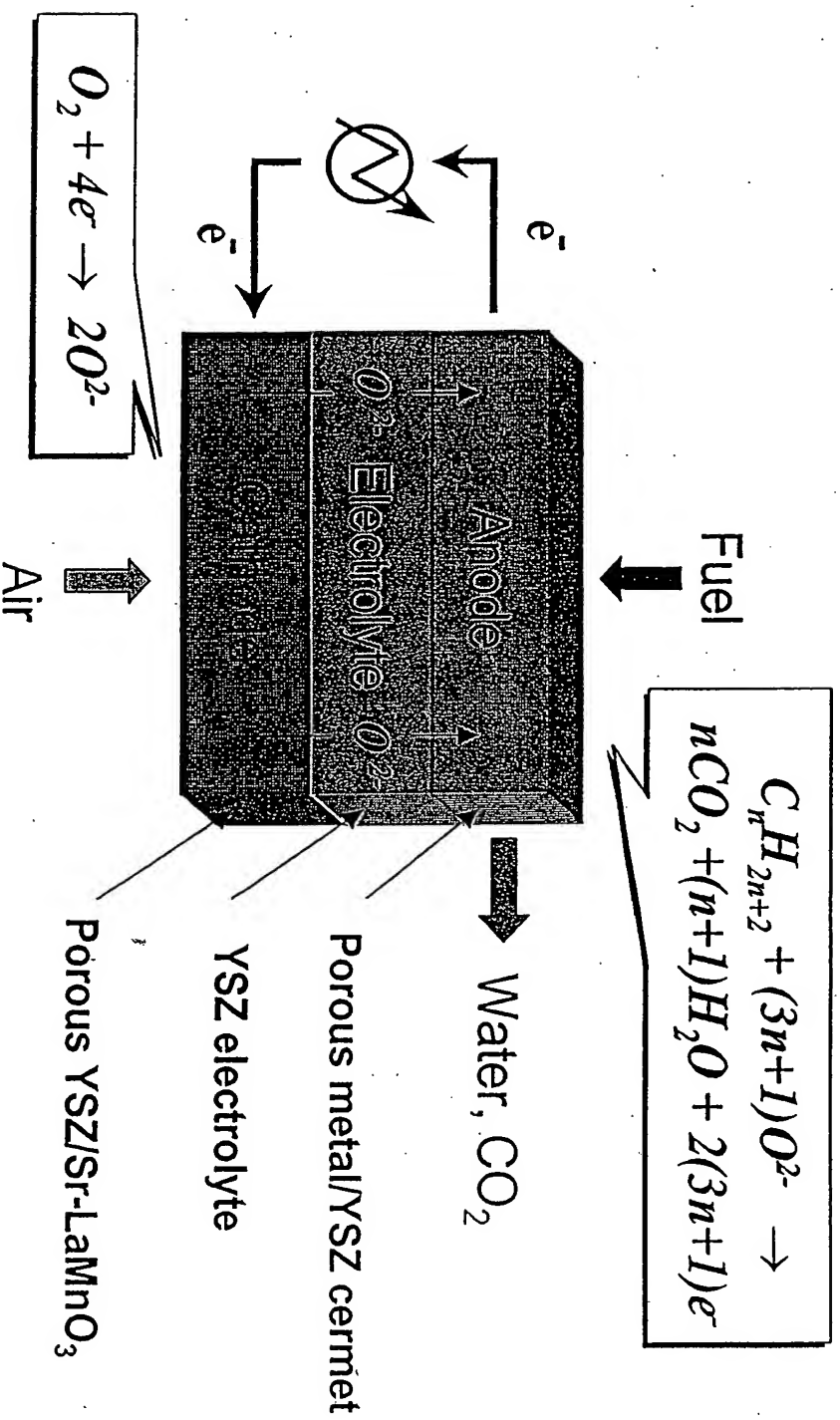


FIGURE 1A

# Stable in liquid fuels

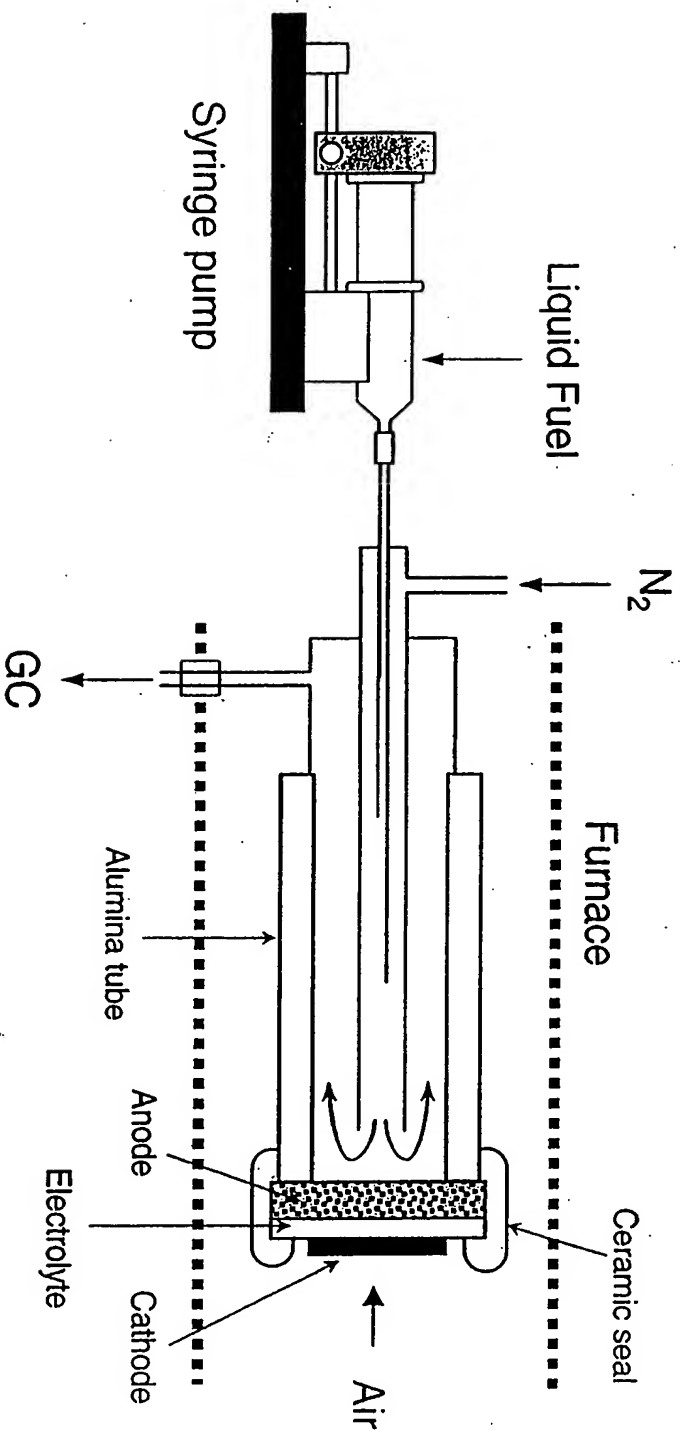
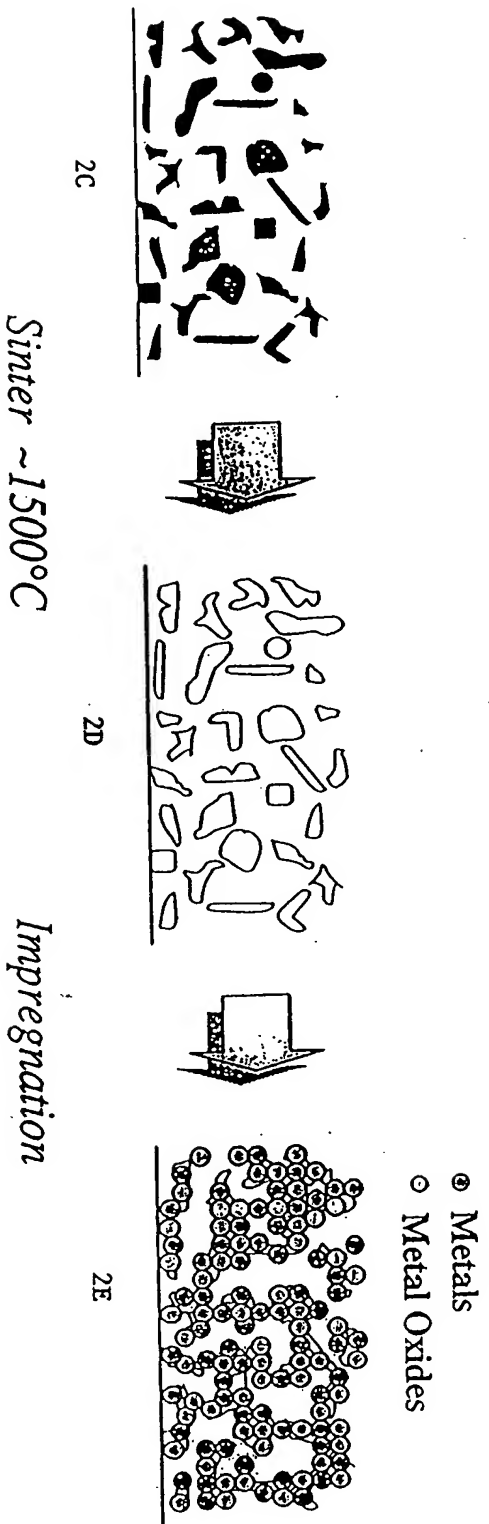
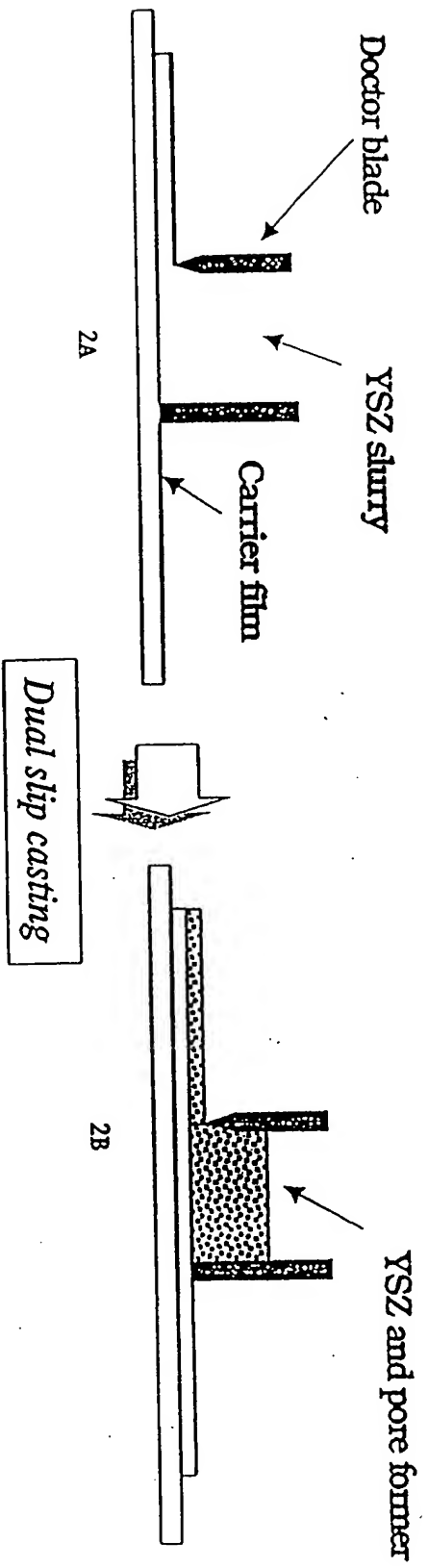


FIGURE 1B

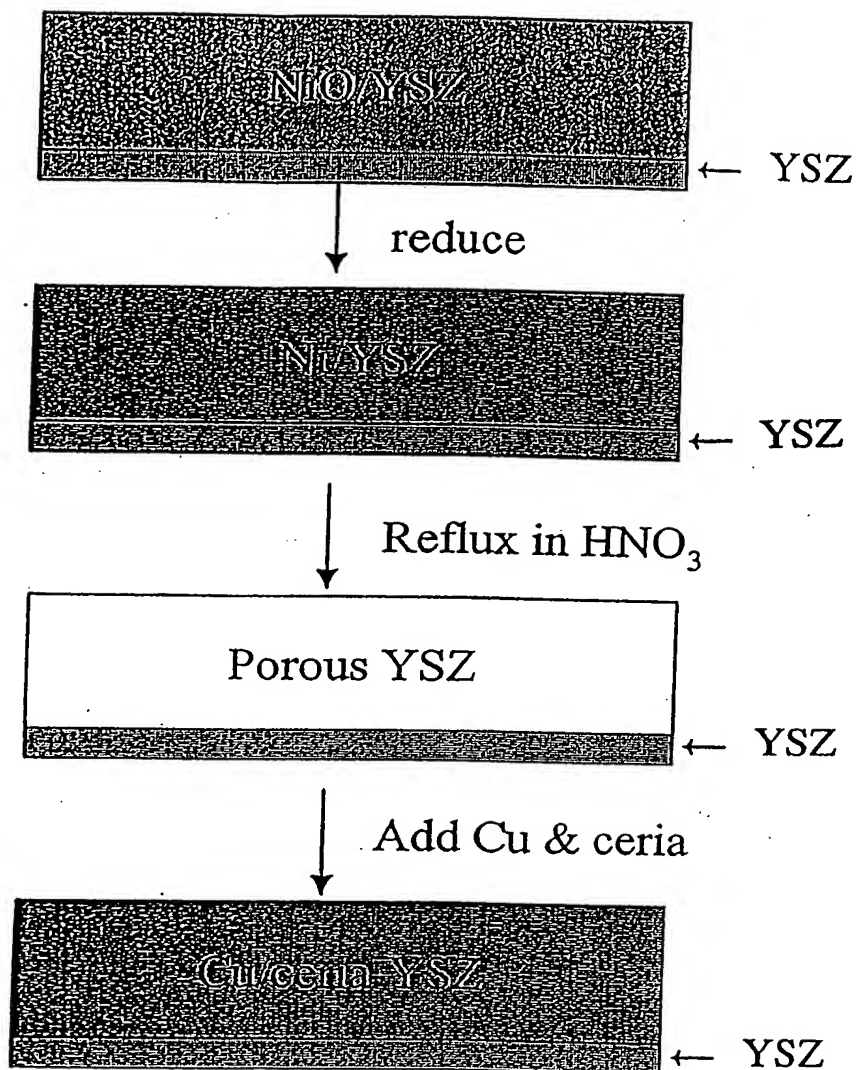
# Fabrication methods:



FIGURES  
2A - 2E



*We can remake Ni cermets.*



**FIGURE 3**

Can we make cells that are stronger?

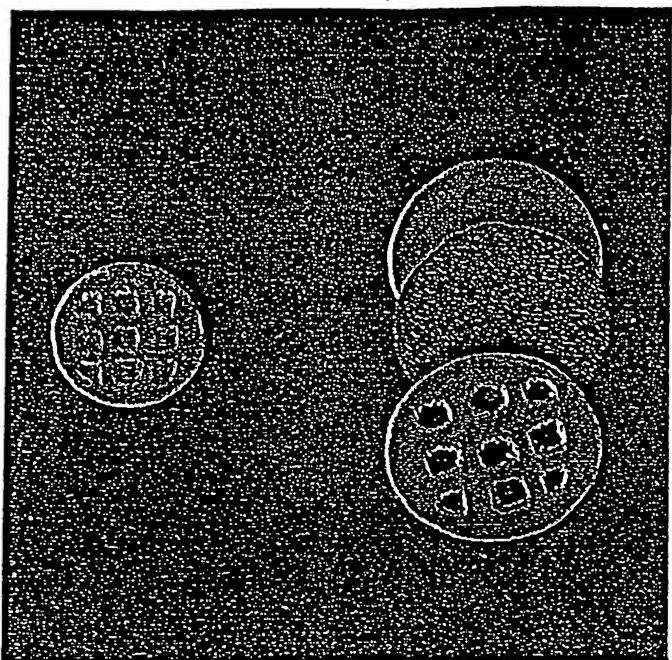


FIGURE 4A

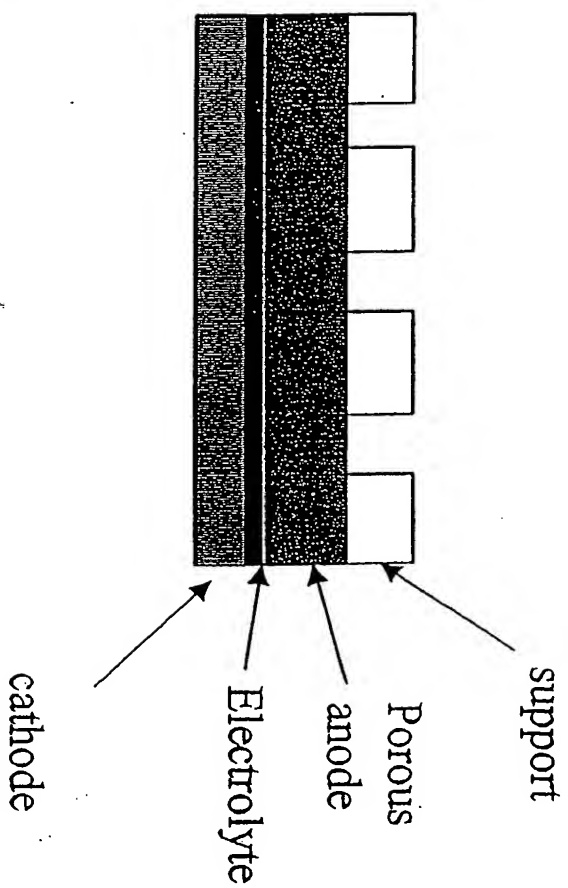


FIGURE 4B



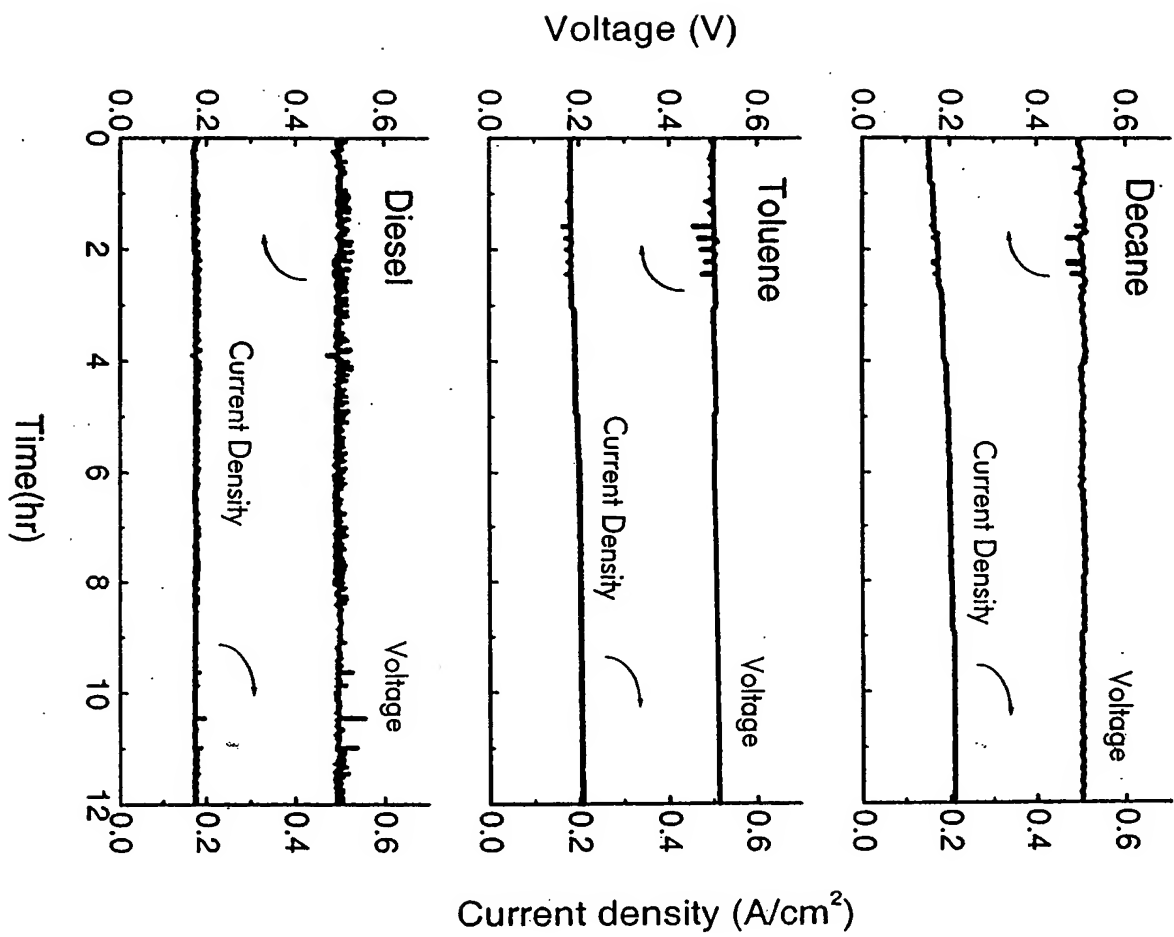


FIGURE 5



Voltage (V) and Current Density ( $A/cm^2$ )

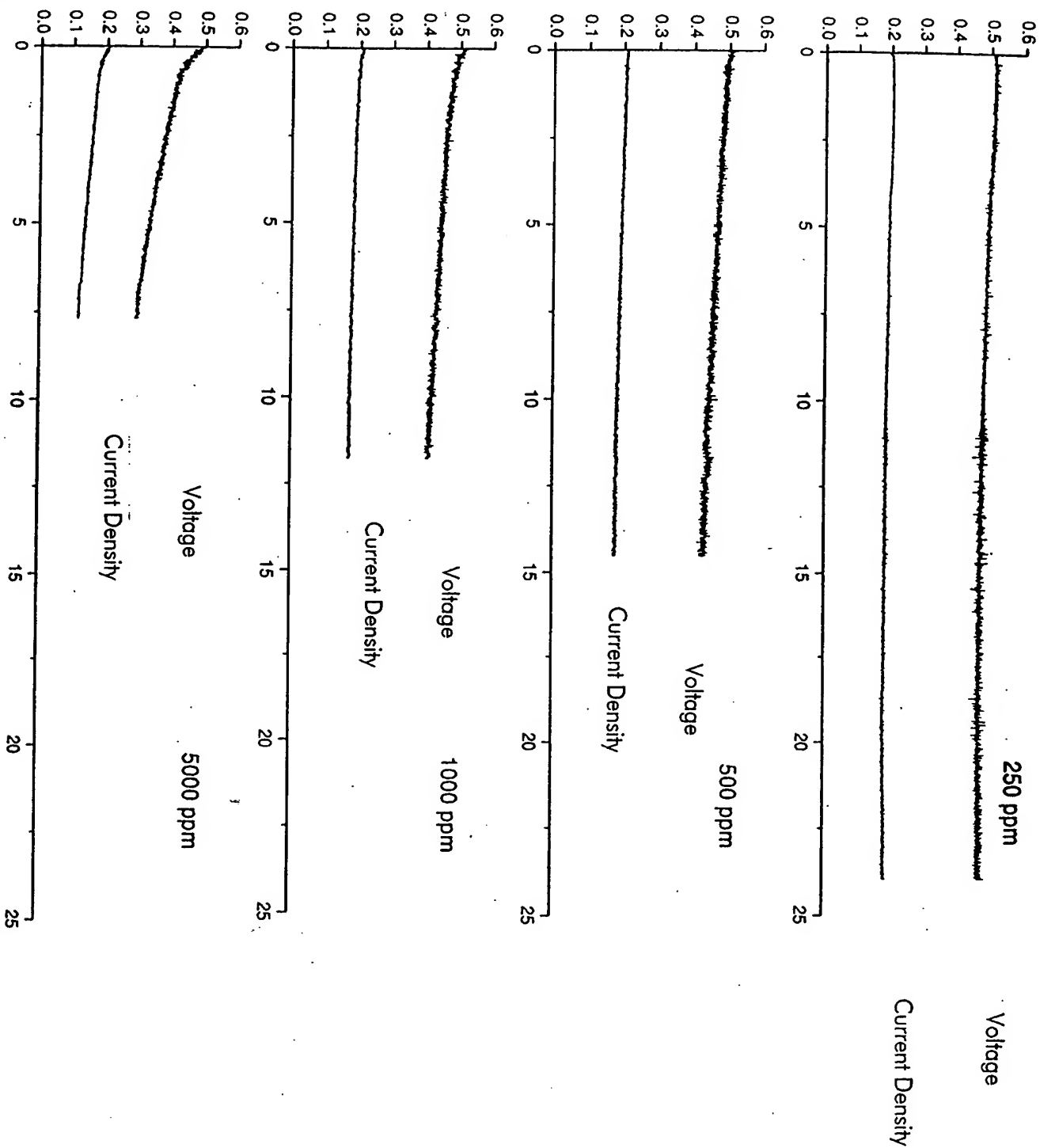


FIGURE 6



Current Density ( $\text{A}/\text{cm}^2$ )

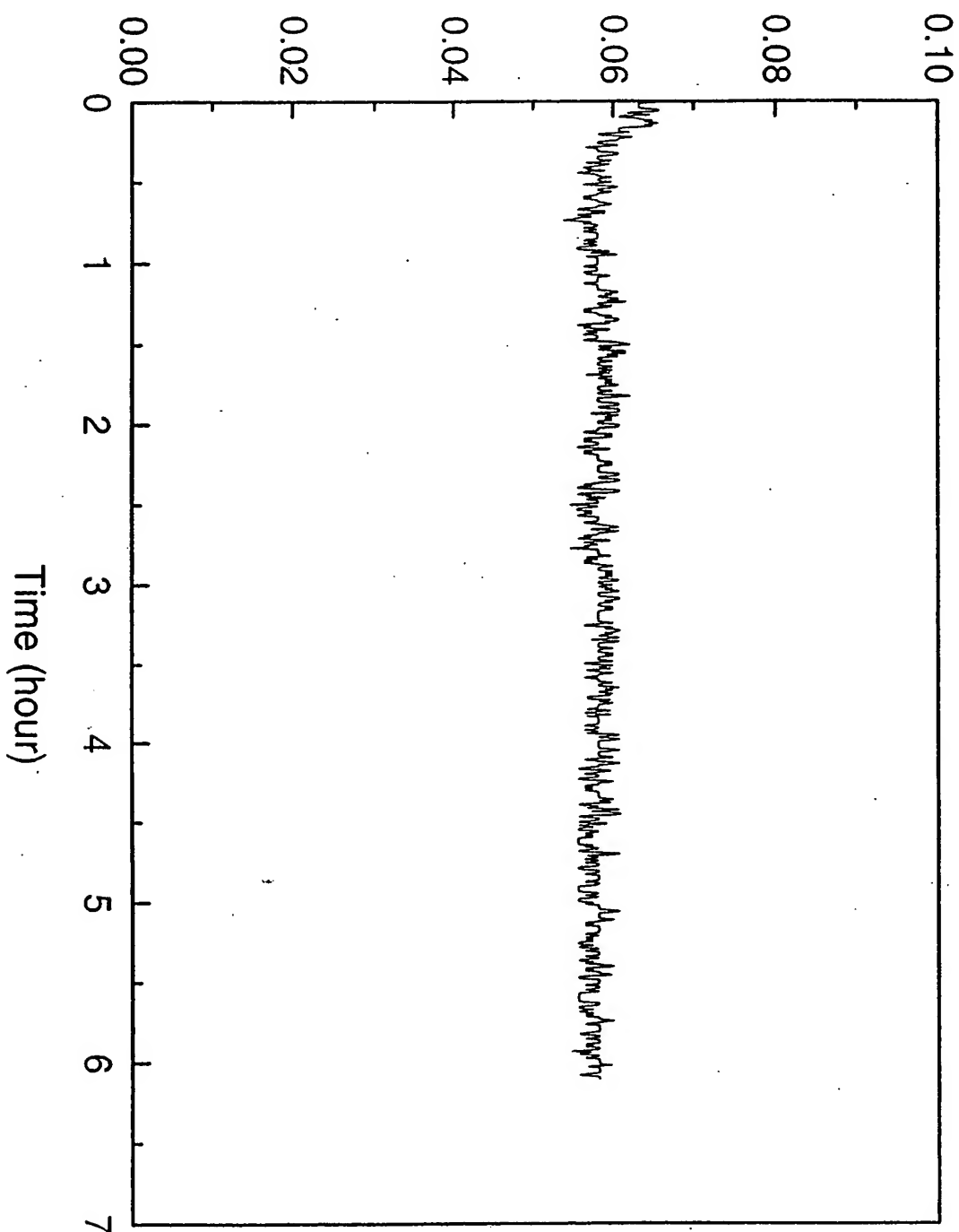


FIGURE 7





Voltage (V) and Current Density ( $\text{A}/\text{cm}^2$ )

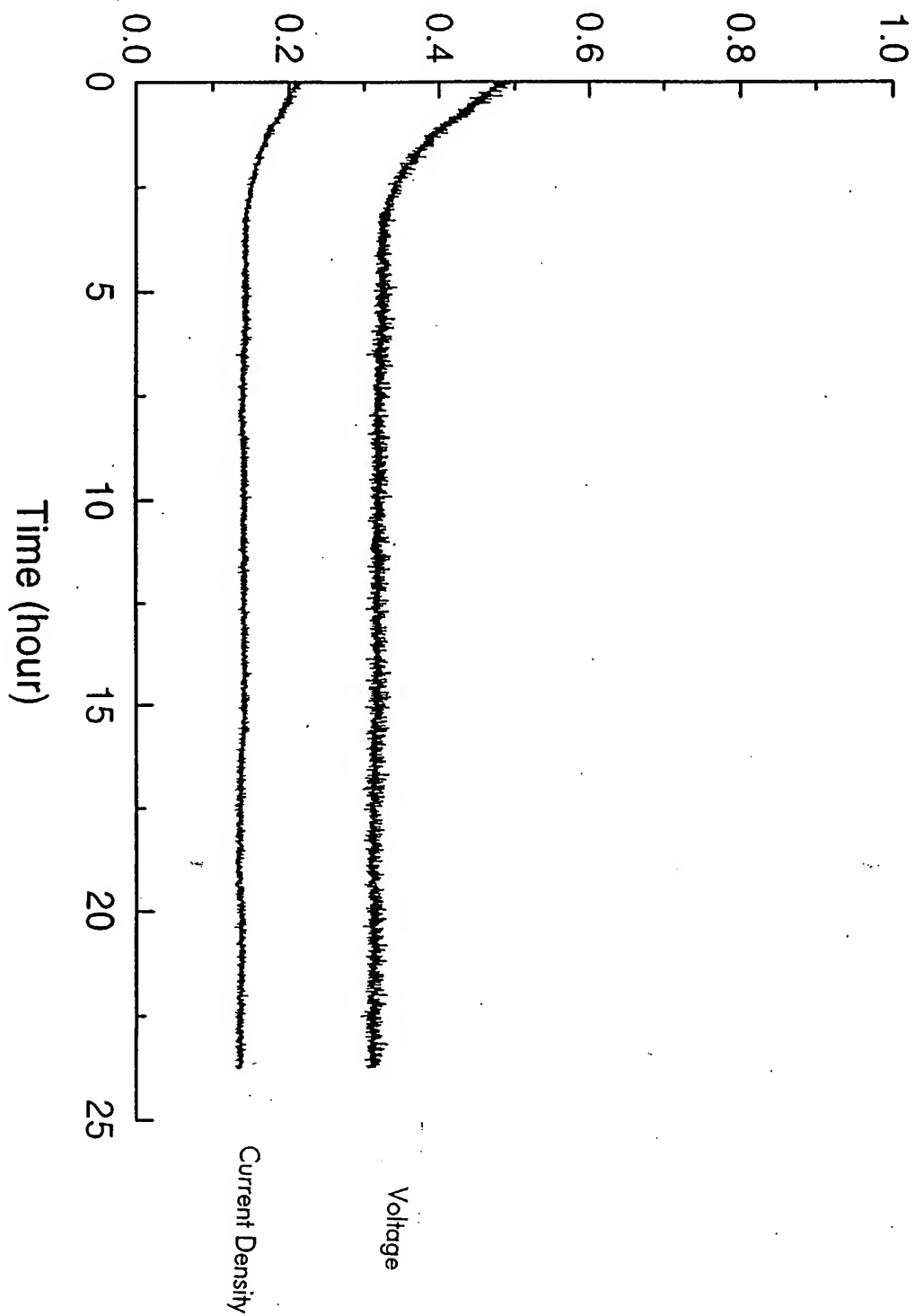


FIGURE 8

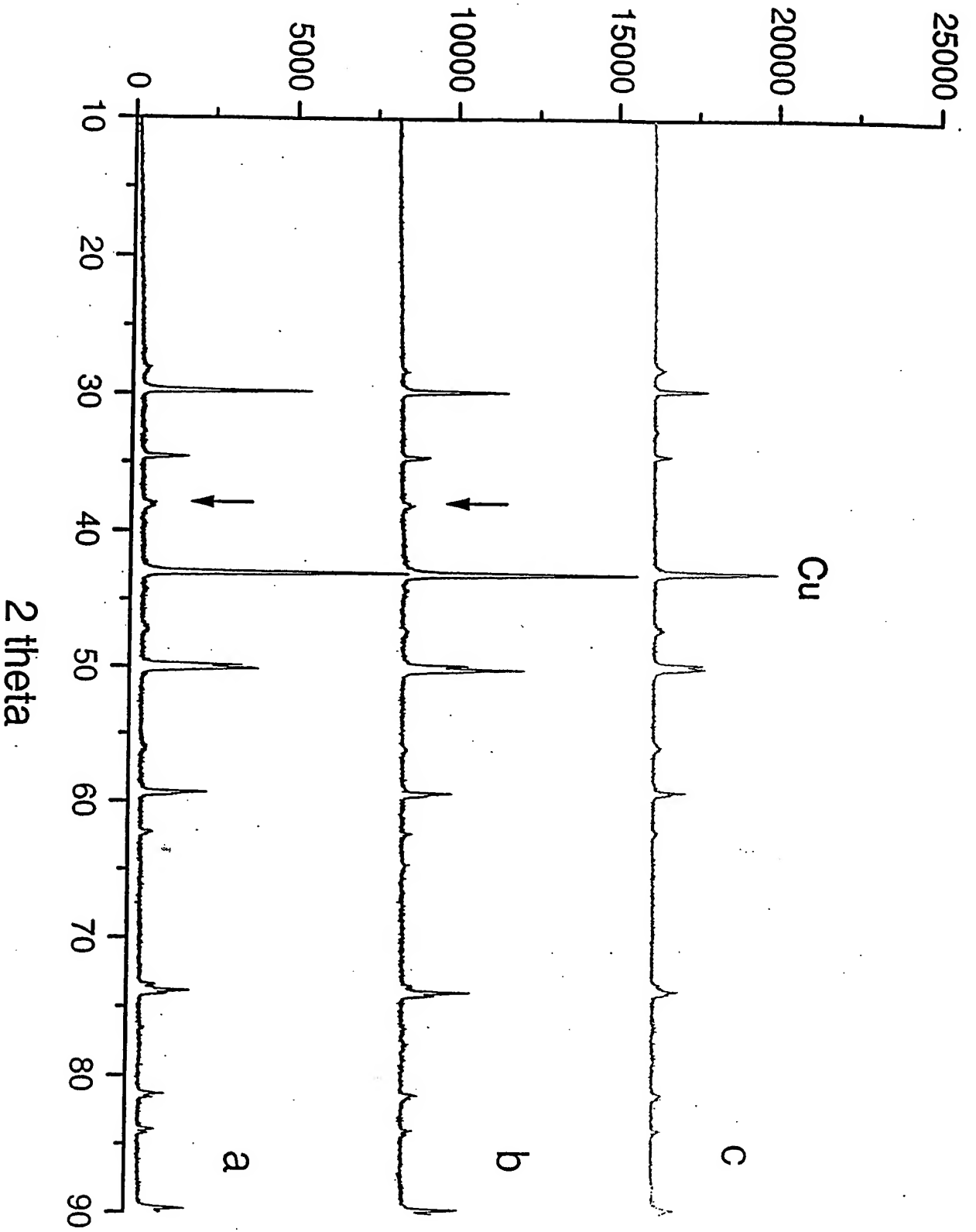


FIGURE 9



100% Gasoline

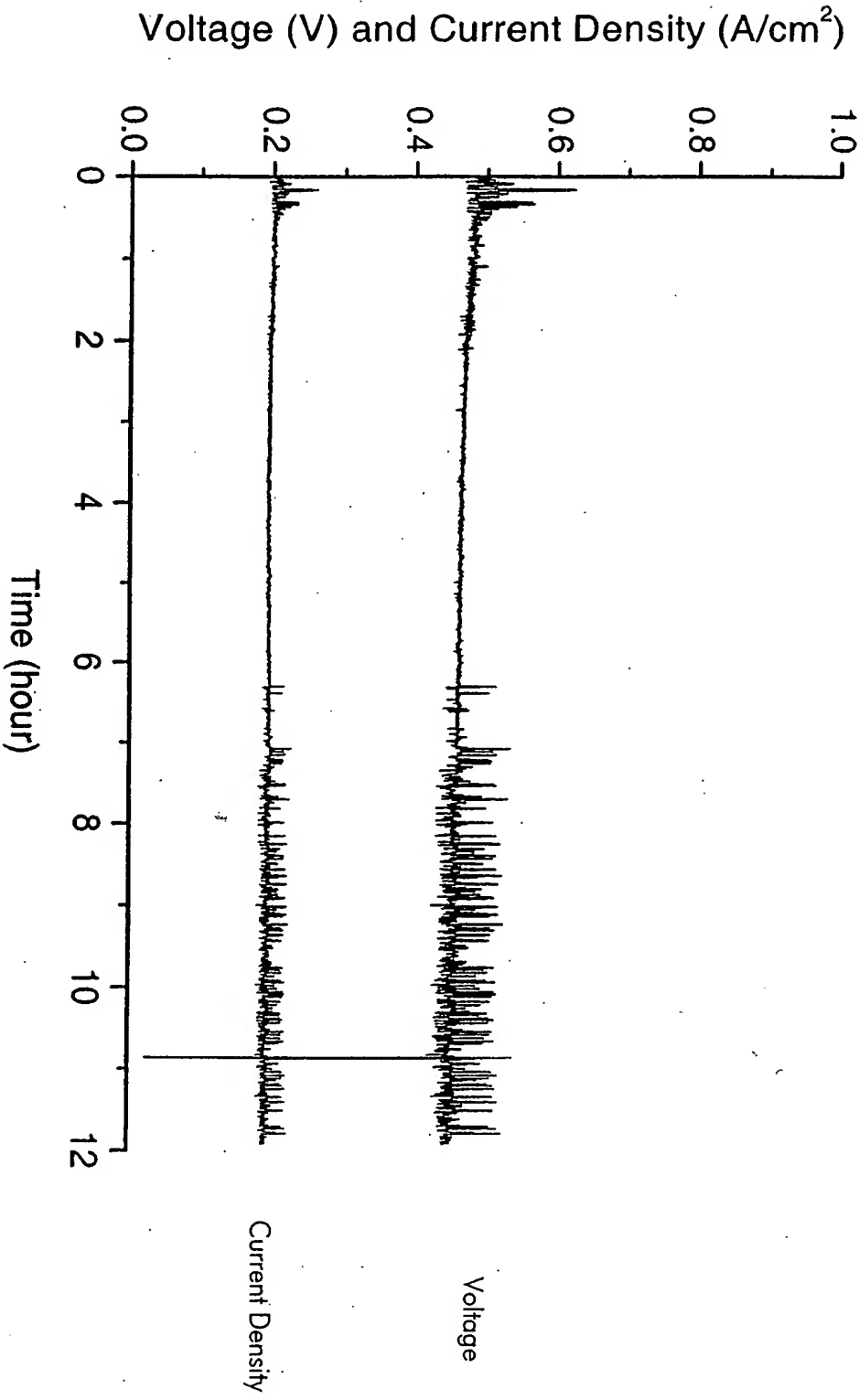


FIGURE 10

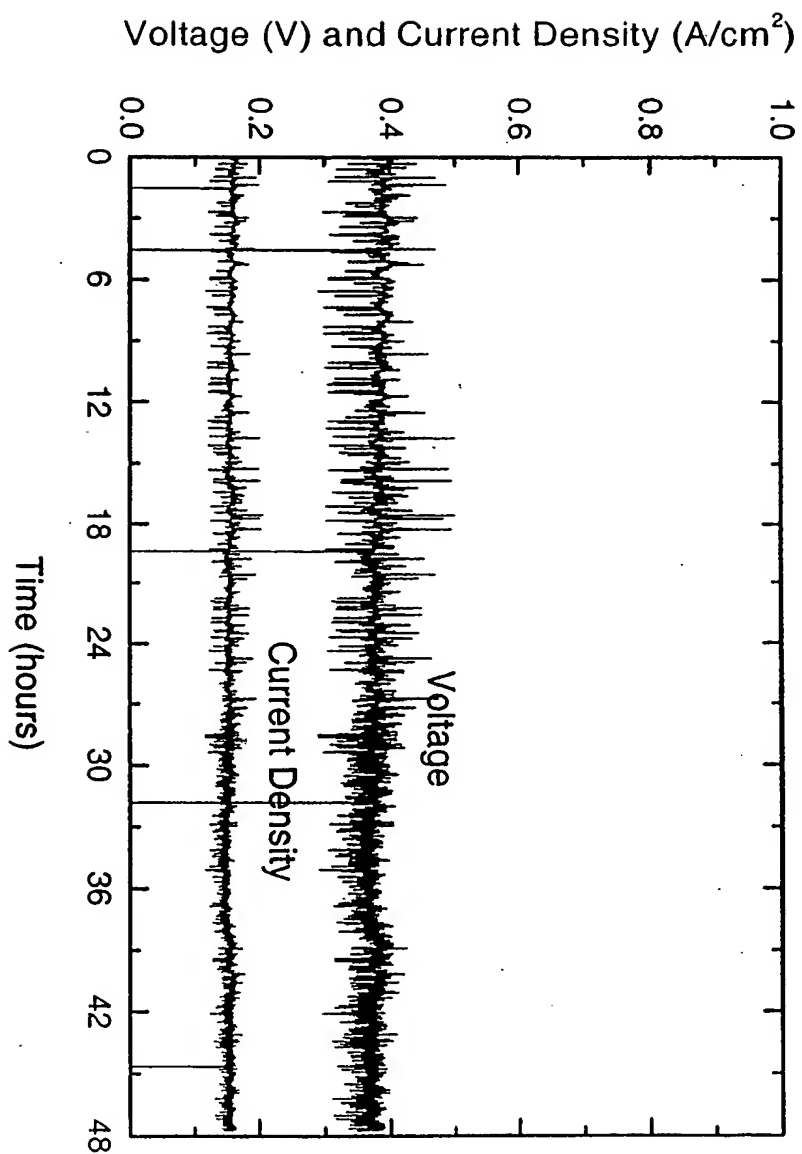


FIGURE 11

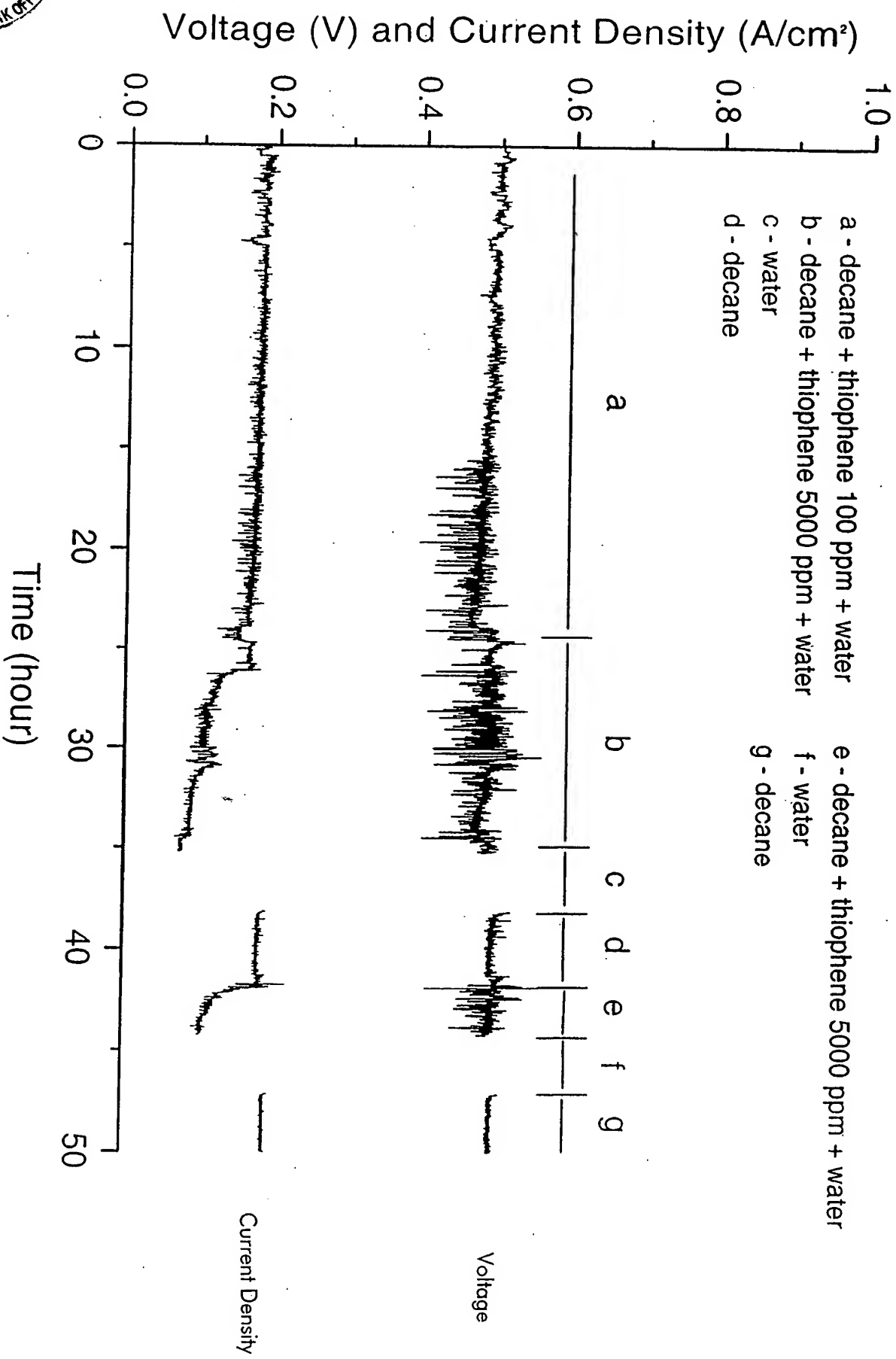


FIGURE 12

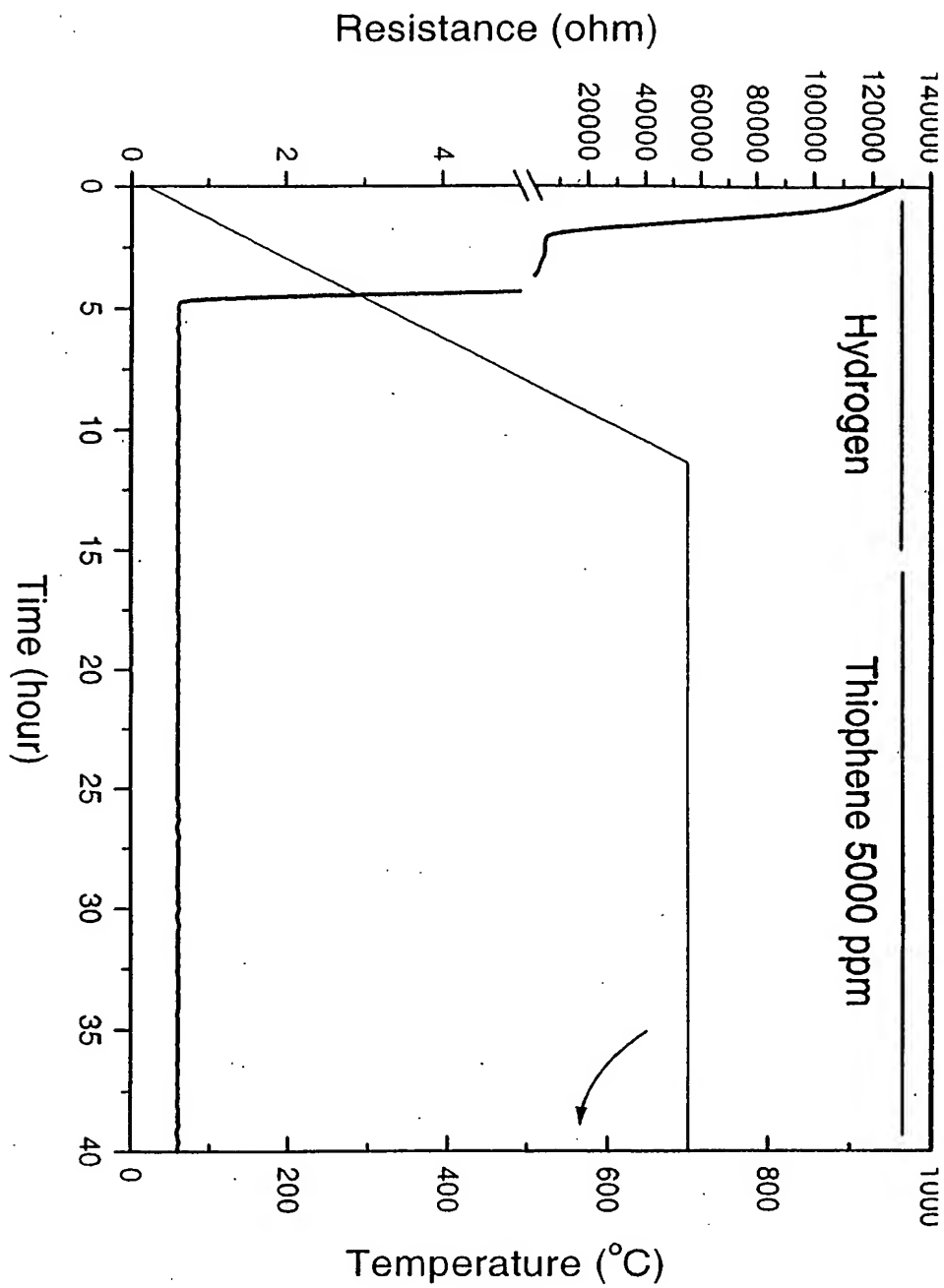


FIGURE 13



Cell made from 40%Ni/YSZ  
cermet, after removal of Ni and  
addition of ceria & Cu.

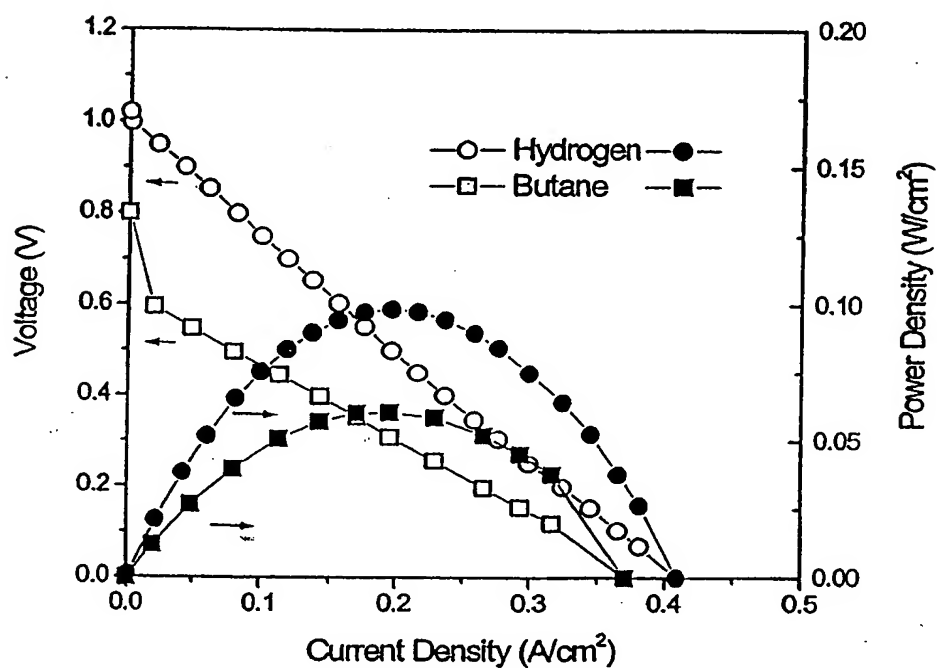


FIGURE 14